

## Hantavirus and Ebola virus outbreaks: When Deadly Pathogens Challenge Global Health Governance

Animesh Roul

*Mr Animesh Roul is the Executive Director of the Society for the Study of Peace and Conflict, New Delhi.*

### Summary

In the context of the recent Hantavirus and Ebola virus outbreaks, this commentary examines the weakness in international health preparedness against zoonotic spillovers, travel-linked clusters, biosafety, biosecurity, pathogen sharing and equitable access to countermeasures. The article argues that the International Health Regulations and the WHO Pandemic Agreement remain important but incomplete, especially while the Pathogen Access and Benefit-Sharing framework remains unsettled.

### Introduction

The world has witnessed the chaos during the COVID-19 pandemic, which killed nearly 7.1 million people worldwide so far and has overwhelmed every country with intermittent lethal waves between 2020 and 2023.<sup>1</sup> Deadly pathogens like the SARS Coronavirus exposed the weakness of global health governance. These hidden, unreported pathogens spread through people, animals, healthcare facilities, borders, and laboratories worldwide. Yet the international architecture designed to manage global health crises and emergencies remains divided into separate blocks: public health, emergency response, biosafety, biosecurity, trade, development, and disarmament. The recent outbreaks of the Hantavirus and Ebola virus highlight the dangers posed by the fragmented global health response.

### Hantavirus (Ushuaia, Argentina)

In mid-April 2026, information emerged about a severe acute respiratory illness aboard the Dutch-flagged cruise ship MV Hondius, which departed from Ushuaia, Argentina's southernmost town known as the "end of the world," with nearly 150 passengers and crew. By May 26, a total of 13 cases had been reported, comprising 11 confirmed and two probable cases, along with three fatalities.<sup>2</sup> These three deaths were recorded before May 2, 2026, which means the subsequent infections were mild or asymptomatic spread. However, the illness was attributed to a deadly Andes strain of Hantavirus (ANDV).<sup>3</sup> The previous occurrence of this strain's deadly impact in Argentina was from November 2018 to February 2019, when Hantavirus pulmonary syndrome spread through person-to-person

contact in Chubut Province, causing 32 confirmed cases and 12 fatalities.<sup>4</sup>

Hantavirus is not usually a pandemic-causing pathogen and is mainly transmitted to humans through contact with contaminated urine, droppings, or saliva from infected rodents, with risk heightened by activities such as cleaning poorly ventilated spaces, farming, forestry work, or sleeping in rodent-infested dwellings.<sup>5</sup> With Hantavirus, the chain of risk spans ecology, housing, labor conditions, land use, sanitation, rat control, and clinical diagnosis.

### **Ebolavirus (Bundibugyo, Uganda)**

Much like the Hantavirus situation, the ongoing Ebola outbreak that began in Bundibugyo, Uganda, and later spread into neighboring countries underscores the significant challenges that deadly pathogens pose to public health. As of mid-May 2026, the World Health Organization reported eight laboratory-confirmed cases, 246 suspected cases, and 80 suspected deaths in Ituri Province, as well as two confirmed cases in Kampala, Uganda. Unconfirmed estimates, however, suggest considerably higher numbers, with approximately 900 suspected cases and over 200 suspected deaths reported by May 25, 2026, primarily concentrated in the Democratic Republic of the Congo.<sup>6</sup>

The outbreak constituted a Public Health Emergency of International Concern (PHEIC). The WHO also reported deaths among health workers (e.g., three Red Cross volunteers died initially), uncertainty about the true extent of the spread, and the absence of a licensed vaccine or specific therapeutics for the Bundibugyo strain of Ebolavirus. On May 25, 2026, the Africa Centers for Disease Control and Prevention issued a warning that 11 African nations are currently at risk amid an ongoing Ebola outbreak. Officials

from the World Health Organization emphasized the need for international collaboration, cautioning that “no single country can respond to this magnitude of outbreak alone.” Unlike Hantavirus, Ebolavirus remains a severe and often fatal disease, with the WHO estimating an average case fatality rate of around 50 percent. However, rates have varied from 25 to 90 percent in past outbreaks. The 2014–2016 West Africa epidemic remains the defining example of how delayed detection, weak health systems, porous borders, fear, unsafe burials, and slow international mobilization can turn a local outbreak into a regional disaster. It killed more than 11,000 people and exposed the poor condition of health systems in Guinea, Liberia, and Sierra Leone. That outbreak remained the largest Ebola epidemic since the virus was identified in 1976, with more cases and deaths than all previous Ebola outbreaks combined.<sup>7</sup>

These two pathogens remain among the most lethal biological entities ever discovered because they trigger widespread structural collapse rather than localized inflammation, turning the body’s defenses against itself. While Ebola paralyzes the immune response and destroys blood vessels, causing massive internal bleeding and fatal systemic shock, Hantavirus targets the vasculature of the lungs or kidneys, triggering a hyper-immune response that floods the respiratory air sacs with plasma, essentially suffocating the patient from the inside.

### **Why These Outbreaks Matter Together**

The Hantavirus and Ebolavirus both cause viral hemorrhagic fevers, but differ in virulence, transmission, geography, and most importantly, pandemic potential. But their outbreaks and spread beyond boundaries point to the same failure in health

governance. It is common knowledge that biological threats know no political boundaries. A virus may originate in a reservoir such as a rodent, bat, or pig, followed by an initial exposure event. It might initially manifest as respiratory failure at a local medical facility. Then it can travel across borders by ship or aircraft, thereby raising significant concerns about laboratory safety, information sharing, and public trust. Another virus might begin with spillover from animals, spread during a funeral, spread further in a hospital, cross a land border with people or vector movement, and reveal the lack of vaccines for a pathogen that isn't as commercially appealing. This is why the primary lesson from any outbreak extends beyond merely "preparing for the pandemic." The lesson is to prepare for biological risks in all their forms: zoonotic spillovers, laboratory accidents, high-fatality outbreaks, deliberate misuse of pathogens, neglected endemic diseases, and mobility-associated clusters (e.g., a multi-country ANDV cluster linked to MV Hondius). Given the dynamic and multifaceted nature of these deadly pathogens, global health security must be integrated with biosafety, biosecurity, environmental change, conflict, migration, trade, and development.

### **Pandemic Agreement: The PABS Gap**

The International Health Regulations (IHR) remain the primary legal framework for reporting and responding to cross-border health threats. The 2024 amendments strengthened this framework by introducing the concept of a "pandemic emergency," enhancing national coordination requirements, and adding provisions on access to medical products and financing. However, the wider WHO Pandemic Agreement, adopted by the World Health Assembly (WHA) in May 2025, still has an unfinished core: the Pathogen Access and Benefit-Sharing system, or PABS.<sup>8</sup> It broadly

seeks to address a basic imbalance in outbreak governance. Countries are expected to share pathogen samples and genetic sequence data quickly. Still, they are not always assured fair access to the vaccines, diagnostics, therapeutics, and other products developed from those materials. COVID-19 exposed this gap sharply: scientific data moved fast, but medical countermeasures were distributed unevenly. PABS is intended to place pathogen sharing and benefit sharing on a more equal footing.

In Ebola outbreaks, rapid sharing of samples and sequence data helps identify the strain, track transmission, and guide vaccine or therapeutic research. But if affected countries do not receive timely access to the resulting tools, cooperation becomes fragile. This concern is sharper for Hantavirus because licensed vaccines and specific therapeutics remain limited. The issue here is less about mass vaccination and more about laboratory confirmation, genomic data, clinical guidance, and research cooperation.

The Pandemic Agreement seeks to balance surveillance with equity, sovereignty with international responsibility, and public health with biosecurity. Despite claims from some conspiracy theorists, the agreement does not grant the World Health Organization authority to enforce lockdowns, vaccine mandates, or domestic health measures; these decisions remain under the jurisdiction of national governments. However, delays surrounding the PABS framework serve as a cautionary sign. While there is global consensus on the need for fairer management of future pandemics, an agreement has yet to be reached regarding the relationship between prompt pathogen sharing and assured access to resulting benefits.<sup>9</sup> Until this issue is addressed, the Pandemic Agreement will remain significant but incomplete.<sup>10</sup>

## How is India prepared for viral outbreaks?

For India, Hantavirus can now be a geographically distant threat, but Ebola is not. Since the WHO on May 17, 2026, declared the Ebolavirus outbreak in Congo and Uganda a public health emergency (PHEIC), countries across the world, including India, are stepping up surveillance and preparedness to prevent any possible spread of the virus.<sup>11</sup> India issued advisories for travelers from affected or high-risk African regions around the virus epicenter and strengthened screening norms at airports, ports, and points of entry.<sup>12</sup> In response to a recent incident involving a young traveler returning from Uganda, India demonstrated its readiness against Ebola. The suspected case, which ultimately tested negative, underscored the country's rapid-response protocols.<sup>13</sup> Notably, the immediate implementation of quarantine measures and rapid testing exemplify the robustness and readiness of India's defense mechanisms to intercept and contain potential outbreaks. Although Ebola does not transmit as quickly as influenza or COVID-19, a single imported case could still challenge India's preparedness. Historically, India has confronted significant zoonotic threats, including Nipah virus infection, Crimean-Congo hemorrhagic fever, Kyasanur Forest disease, scrub typhus, and other emerging infections. These experiences highlight the importance of early suspicion, infection control, and trusted communication in managing high-fatality infections.

## Conclusion

The Hantavirus outbreak is largely contained and stable as of May 25, 2026 according to WHO statements<sup>14</sup>, and is unlikely to become a global pandemic. The Ebolavirus situation, although grim, has not yet been declared a

pandemic emergency. Both outbreaks carry serious warnings showing that biological threats do not follow a single pattern. The WHO, the IHR, the Pandemic Agreement, PABS, One Health platforms, biosafety systems, and the Biological Weapons Convention (BWC) all address parts of the risk landscape. The unfinished PABS annex is central to the existing trust deficit. Affected countries are more likely to share pathogen samples and genetic data quickly if they are assured of fair access to vaccines, diagnostics, therapeutics, technology, and financing. Without that assurance, early reporting and scientific cooperation may weaken. The post-COVID-19 world doesn't need another limited pandemic plan. Instead, it needs a comprehensive biological security agreement that integrates surveillance, equity, biosafety, biosecurity, emergency response, and, more importantly, trust.

## Endnote :

- <sup>1</sup> "Number of COVID-19 deaths reported to WHO (cumulative total)", WHO COVID-19 dashboard, <https://data.who.int/dashboards/covid19/deaths> (Accessed on May 20, 2026.)
- <sup>2</sup> "The MV Hondius: A Case for Real-Time Epidemiological Surveillance", *Infection Control Today*, May 26, 2026, <https://www.infectioncontrolday.com/view/mv-hondius-case-real-time-epidemiological-surveillance>.
- <sup>3</sup> "Andes Virus Outbreak on a Cruise Ship: Current Situation", *US Center for Disease Control and Prevention*, May 19, 2026 <https://www.cdc.gov/hantavirus/situation-summary/index.html>
- <sup>4</sup> "From hantavirus to fires, Epuén is living the worst summer in its history", *Clarín*, February 05, 2019. [https://www.clarin.com/sociedad/hantavirus-incendios-epuyen-vive-peor-verano-historia\\_o\\_rTIV8FNGD.html](https://www.clarin.com/sociedad/hantavirus-incendios-epuyen-vive-peor-verano-historia_o_rTIV8FNGD.html)
- <sup>5</sup> "Hantavirus", *WHO*, May 06, 2026, <https://www.who.int/news-room/fact-sheets/detail/hantavirus>

- <sup>6</sup> Ebola outbreak poses massive challenges, warns nurse, *BBC News*, May 24, 2026, <https://www.bbc.com/news/articles/cy421wgr2mpo>
- <sup>7</sup> Bosa H Kyobe, N. Kamara, M. Aragaw (et al), “The West Africa Ebola virus disease outbreak: 10 years on” *The Lancet Global Health*, Volume 12, Issue 7, July 2024. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(24\)00129-3/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(24)00129-3/fulltext)
- <sup>8</sup> “World Health Assembly adopts historic Pandemic Agreement to make the world more equitable and safer from future pandemics”, *WHO*, May 20, 2025, <https://www.who.int/news/item/20-05-2025-world-health-assembly-adopts-historic-pandemic-agreement-to-make-the-world-more-equitable-and-safer-from-future-pandemics>
- <sup>9</sup> Mark Eccleston-Turner, Michelle Rourke, Stephanie Switzer, “Fate Unknown: The Pandemic Agreement’s Pathogen Access and Benefit Sharing,” *Think Global Health*, May 20, 2025. <https://www.thinkglobalhealth.org/article/fate-unknown-pandemic-agreements-pathogen-access-and-benefit-sharing>
- <sup>10</sup> WHO Member States agree to extend negotiations on Pathogen Access and Benefit Sharing annex , WHO Press Release, May 1, 2026. <https://www.who.int/news/item/01-05-2026-who-member-states-agree-to-extend-negotiations-on-pathogen-access-and-benefit-sharing-annex>
- <sup>11</sup> India issues Ebola advisory for travellers from affected regions, *Down to Earth*, May 21, 2026, <https://www.downtoearth.org.in/health/india-issues-ebola-advisory-for-travellers-from-affected-regions>
- <sup>12</sup> DGCA issues Ebola SOP for airlines, tightens screening at Indian airports , *India Today*, May 06, 2026, [https://www.indiatoday.in/india/story/dgca-ebola-sop-airlines-self-declaration-forms-airport-screening-india-2917024-2026-05-26?utm\\_source=global-search&utm\\_medium=global-search&utm\\_campaign=global-search](https://www.indiatoday.in/india/story/dgca-ebola-sop-airlines-self-declaration-forms-airport-screening-india-2917024-2026-05-26?utm_source=global-search&utm_medium=global-search&utm_campaign=global-search)
- <sup>13</sup> Uganda-returned woman, isolated in Bengaluru, tests negative for Ebola , *India Today*, May 27, 2026. <https://www.indiatoday.in/india/story/ebola-outbreak-uganda-returned-woman-isolated-bengaluru-negative-test-no-confirmed-case-india-government-2917720-2026-05-27>
- <sup>14</sup> WHO Director General Tedros Adhanom Ghebreyes, *X @DrTedros*, May 25, 2026, <https://x.com/DrTedros/status/2058628208111546673>